

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization

International Bureau



(43) International publication date

22 September 2005 (22.09.2005)

PCT

(10) International publication number

WO 2005/087004 A2

(51) International patent classification⁷: A01N 43/00

(21) International application number: PCT/EP2005/001739

(22) International filing date: 19 February 2005 (19.02.2005)

(25) Language of filing: German

(26) Language of publication: German

(30) Data relating to the priority:
10 2004 010 813.7 5 March 2004 (05.03.2004) DE

(71) Applicant (for all designated States except US): BAYER CROPSCIENCE AG [DE/DE]; Alfred-Nobel-Str. 50, 40789 Monheim (DE).

(72) Inventors; and

(75) Inventors/Applicants (US only): DOLLINGER, Markus [DE/FR]; 16 rue Jean-Marie Leclair, F-69009 Lyon (FR). SANTEL, Hans-Joachim [DE/DE]; Grünstr. 9a, 51371 Leverkusen (DE). GESING, Ernst, Rudolf [DE/DE]; Trillser Graben 4, 40699 Erkrath (DE). HACKER, Erwin [DE/DE]; Margarethenstr. 16, 65239 Hochheim (DE).

(74) Attorney: SCHWENK, Norbert; Bayer CropScience GmbH Patente und Lizenzen, Gebäude K 607, 65926 Frankfurt (DE).

(81) Designated states (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated states (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

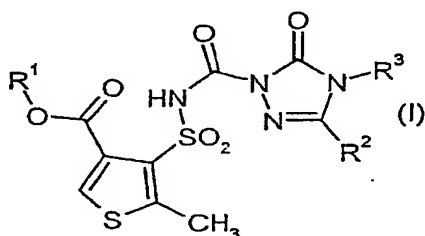
- Without International Search Report and to be republished on receipt of this report.

[continued on next page]

As printed

(54) Title: NOVEL HERBICIDES BASED ON SUBSTITUTED THIEN-3-YL-SULPHONYLAMINO(THIO)CARBONYL-TRIAZOLIN(THI)ONES AND 4-HPPD-INHIBITORS

(54) Bezeichnung: NEUE HERBIZIDE AUF BASIS VON SUBSTITUIERTEN THIEN-3-YL-SULFONYLAMINO(THIO)CARBONYL-TRIAZOLIN(THI)ONEN UND 4-HPPD-HEMMSTOFFEN



(57) Abstract: The invention concerns herbicides, characterised in that they contain an effective amount of an active substance combination consisting of (a) at least one substituted thien-3-yl-sulphonylamino(thio)carbonyl-triazolin(thi)one of general formula (I), in which R¹, R² and R³ are defined as indicated in the description, or salts of the compounds of formula (I); and (b) one or more compounds taken from a second group of herbicides that contains selected 4-HPPD inhibitors; and optionally also (c) a compound that improves the resistance of cultivated plants. The invention also concerns the use of the herbicides for combating unwanted plant growth and a method for producing the herbicides.

(57) Zusammenfassung: Die Erfindung betrifft herbizide Mittel, gekennzeichnet durch einen wirksamen Gehalt an einer Wirkstoffkombination bestehend aus (a) zumindest einem substituierten Thien-3-yl-sulfonylamino(thio)carbonyl-triazolin(thi)on der allgemeinen Formel (I), in welcher R¹, R² und R³ wie in der Beschreibung angegeben definiert sind - oder Salzen der Verbindungen der Formel (I) - und (b) einer oder mehrerer Verbindungen aus einer zweiten Gruppe von Herbiziden, welche ausgewählte 4-HPPD-Hemmstoffe enthält, und gegebenenfalls zusätzlich (c) einer die Kulturpflanzen-Verträglichkeit verbessernden Verbindung. Die Erfindung betrifft weiterhin die Verwendung der Mittel zur Bekämpfung von unerwünschtem Pflanzenwuchs und ein Verfahren zur Herstellung der Mittel.

WO 2005/087004 A2

For an explanation of the two-letter codes and the other abbreviations, reference is made to the explanations ("Guidance Notes on Codes and Abbreviations") at the beginning of each regular edition of the PCT Gazette.